

EXHIBIT A

What to Know About Adolescent Pornography Exposure

Online: Faculty Page, Facebook : 11-14 minutes

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Key points

- The majority of adolescents are viewing pornography (on purpose or accidentally).
- Most pornography is accessed via free websites on mobile devices (phones and tablets).
- For children without an understanding of healthy sexuality, exposure to pornography (especially violent porn) can be traumatic.
- Parents can be proactive and talk to their children about healthy sexuality and the reality of pornography.

A far cry from looking at a sensual magazine centerfold, today's adolescents are viewing online pornographic videos with motions and sounds, depicting every potential sexual act that can be imagined. The internet, which has been called the "Triple-A Engine" due to its affordability, accessibility, and anonymity (Cooper, 1998), has dramatically changed the [pornography](#) industry; yet its effects on adolescents' development is still unfolding.

What do we know?

Exposure to pornography during [adolescence](#) is becoming the norm rather than the exception. For example, among a sample of American high school students, 56 percent viewed pornography in the previous year (Maheaux et al., 2021). In another study of U.S. youth in late adolescence, 80.3 percent reported accessing pornography (Astle et al., 2020). Scholars studying pornography among Dutch adolescents (13 to 17 years old) noted, "More than 70 percent of the adolescents in our sample had already consumed [sexually explicit internet material] at baseline, which suggests that it is now a normative part of adolescent development" (Vandenbosch & Peter, 2016, p.516).

How is pornography being accessed? Data from Pornhub Insights revealed that 86 percent of the site's traffic comes from mobile devices. Moreover, using smartphones to access free pornography online is the most common means of viewing pornographic material (Herbenick et al., 2020; Ma & Shek, 2013). Therefore, pornographic material can be accessed anytime, anywhere, via smartphones.

What's the problem?

Is the fact that 68.4 percent of adolescents reported viewing pornography at some point in their lifetimes a cause for concern (Wright et al., 2020)? There has been an ongoing debate for decades about the potential pros and cons of pornography—yet the bulk of literature reveals that for adolescents, such exposure can be harmful (Rothman, 2021). For example, adolescent pornography exposure has been linked to permissive sexual attitudes (Doornwaard et al., 2015), dominant or aggressive sexual behaviors (Wright et al., 2021), self-objectification and body comparison (Maheux et al., 2021), and the development of pornography-influenced sexual scripts (Bryant, 2010).

In addition, the average age of first pornography exposure is between 11 and 12 years old (Kraus & Rosenberg, 2014; Rothman, 2021). Adolescents at age 11 may or may not have a cognitive understanding of sex and healthy [sexuality](#). For those that do not, exposure to pornographic videos (especially videos of violent, forced, group, or brutal sexual acts) may be [traumatic](#). These youth may not have an accurate view of sex by which to contrast what they see actors performing in pornographic videos. They may not have a schema (or mental representation or category) that informs them that what they are seeing is unrealistic, unethical, illegal, or abnormal. The lack of healthy sexuality may make pornography exposure distressing or disturbing as children try to assimilate what they have seen (“Is this what sex is?”).

Additionally, adolescent brains are in critical periods of development and brain restructuring (pruning), and they may be more susceptible and sensitive to the impact of pornography compared to adults (Brown & Wisco, 2019). Indeed, the highly rewarding nature of pornography (arousing, exciting, pleasurable) may, for some adolescents, lead to the loss of control over pornography use, compulsive use, and use that leads to negative consequences. Indeed, among young adult male participants, 21.61 percent reported needing to increase the amount or intensify the nature of pornography to achieve the same level of arousal (suggesting tolerance; Jacobs et al., 2021)

Finally, the conditioning of one’s arousal response with online pornography may alter one’s experience of arousal with offline sexual partners (Barrett, 2010; Carnes, 2001; Doidge, 2007; Hilton, 2013). Indeed, some research suggests that problematic pornography use is associated with sexual dysfunction (Jacobs et al., 2021). Therefore, although not all youth who view pornography experience these negative consequences, there is the potential for harm for some young people.

What can we do?

Adolescent brains are in a period of development in which the rational, problem-solving frontal part of the brain (prefrontal cortex) is not as connected as the emotional, reward-experiencing part of the midbrain (limbic region) due to a process called myelination (Ashwell, 2019; Volkow & Boyle, 2018). Therefore, adolescents have a heightened sensitivity to rewarding behaviors (like using drugs of abuse, pornography, gaming, etc.) and often need assistance with goal-oriented, rational, problem-solving, which does not occur as quickly as the processing of rewards.

Therefore, parents and caregivers can provide assistance by helping adolescents navigate the highly rewarding online world. Here are a few suggestions:

1. In light of the average age of first exposure to pornography, have a conversation with your child early about what they might come across online and what they should do when they see it (“On the internet, you may see things you do not understand, like pictures or videos of people without clothes on, doing things you haven’t seen before. If you come across any of these pictures or videos, come tell me and we can talk about it.”)
2. Provide [education](#) about pornography and the differences between pornography and healthy, consensual sexual activity (realism of pornography, actors, objectification of men and women, body enhancement, the harms of violence, the importance of consent).
3. Use technological blocking and filtering systems to decrease the risk of unwanted pornography exposure in your household or on your child’s device. Decrease the amount of time your child uses a device alone,

and instead, make using the internet a family activity.

4. Talk to your child about sexuality, healthy sexual behaviors, sexual curiosity, and the values you would like to instill in them related to sex. Without these open, non-evaluative, safe, non-judgmental dialogues, children will turn to other sources as their “teachers,” which may or may not be helpful and adaptive.

Pornography Essential Reads

The developmental landscape for children and adolescents continues to change with the evolution of technology. It is important for the caregivers in their lives to be informed, engaged, and proactive to encourage healthy developmental in our youth.

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